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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/781,953      | 02/14/2001  | Atsushi Murakami     | P 277864            | 9766             |

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EXAMINER

MILLER, PATRICK L

ART UNIT PAPER NUMBER

2837

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/781,953

Applicant(s)

MURAKAMI ET AL.

Examiner

Patrick Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,7,11 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,7,11 and 13-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The indicated allowability of claims 2, 6, 10, and 12-16 is withdrawn in view of the newly discovered reference(s) to Herrington et al (5,032,622). The Examiner regrets the initial indication of allowability of the aforementioned claim. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 7, 11, and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrington et al (5,032,622) in view of Osanai et al (6,237,717) [cited in previous action].
  - Herrington et al disclose a shape foam memory foam member made of polyurethane foam and method (Title and Abstract) with the following characteristics: a bulk density that is not more than 400 kg/m<sup>3</sup> (Col. 1, lines 36-39); said member has an original shape and is compressed with heating, cooled while in the compressed state, released from the compressed state after cooling, and the original shape is recovered by heating (Abstract).
  - Herrington et al do not disclose said member having a coefficient of water absorption between .01g/cm<sup>3</sup> and .2g/cm<sup>3</sup>, said member is provided on a surfaced of an engine soundproof cover (claims 3 and 7), and the shape of said member is recovered by engine heat (claims 17 and 18).

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- Osanai et al disclose a noise-insulating member made of polyurethane foam that covers an engine, where said insulating member has a  $.125\text{g/cm}^3$  coefficient of water absorption. Specifically, Table 1, #2 begins with a foam density of  $.1\text{ g/cm}^3$ . Next, referring to Table 2, #2 has an increase of +25.3%, making the coefficient of water absorption  $.125\text{ g/cm}^3$ , which is within the disclosed range of  $.01\text{g/cm}^3$  to  $.2\text{g/cm}^3$ . The motivation for providing a foam member with a  $.125\text{g/cm}^3$  coefficient of water absorption is to prevent the foam from significantly retaining water, which provides the advantage of increasing the foam shape's density a smaller percentage than that of comparative examples (Comparing Tables 3 and 4).
- With respect to claims 17 and 18, Herrington et al disclose the transition temperature,  $T_g$  being  $35^\circ\text{C}$  ( $95^\circ\text{F}$ ). A person of ordinary skill in the art would know that the operating temperature of an engine is above  $35^\circ\text{C}$ .
- Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the shape memory foam of Herrington et al so that it exhibits characteristics of water repellency, wherein the coefficient of water absorption is  $.125\text{g/cm}^3$ , which falls into the range of  $.01\text{g/cm}^3$  to  $.2\text{g/cm}^3$ , thereby providing the advantage of increasing the foam shape's density by a smaller percentage, as taught by Osanai et al. Additionally, it would have been obvious to one having ordinary skill in the art at the time of the invention that the shape memory foam of Herrington et al can be fitted to a soundproof cover that fits over an engine, and the engine provides the heat to recover the original shape of the foam member, thereby providing the advantage of

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preventing undesirable noise from entering the passenger compartment, as taught by Osanai et al.

- With respect to claims 13-16, Herrington et al disclose the member having a bulk density that is not more than 150 kg/m<sup>3</sup> (Col. 1, lines 36-39).

***Conclusion***

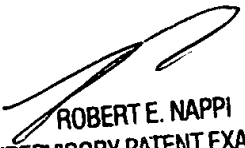
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Miller whose telephone number is 703-308-4931. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on 703-308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

Patrick Miller  
Examiner  
Art Unit 2837

pm  
June 20, 2003

  
ROBERT E. NAPPI  
SUPERVISORY PATENT EXAMINER  
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